AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to FIGS. 1-3 and 5. These sheets, which include FIGS. 1-3 and 5, replace the original sheets including FIGS. 1-3 and 5.

Attachment: Replacement Sheet

REMARKS/ARGUMENTS

Reconsideration and allowance of the above-identified application are respectfully requested. Upon entry of this Amendment, claims 1-22 will be pending.

In the office, the Examiner objected to FIG.s 1-3 and 5, because only that which is old is illustrated. In response, Applicants submit herewith amended figures that include the "PRIOR ART" label. Accordingly, the objection is overcome.

Applicants have carefully reviewed the Examiner's substantive rejections, and have amended independent claims 1 and 13 to clarify the distinction between the cited references and the present invention.

Embodiments of the present invention are intended to overcome a limitation of using compressed headers according to IETF RFC 2507. That is, the specification identifies a problem where the period for transmitting uncompressed headers is not dynamic to reflect changing network conditions. According to embodiments of the invention, when the network is congested, uncompressed headers should be sent *more often* so that burdensome retransmission of multiple packets can be avoided. On the other hand, when network congestion is low, fewer uncompressed headers are needed because fewer packets are lost, and compressed headers according to RFC 2507 may be sent more often.

The Examiner relies primarily on U.S. Patent No. 5,761,438 to Sasaki and RFC 2507 in rejecting the claims. In particular, independent claims 1 and 13 are rejected over Sasaki in view of Degermark et al. (Network Working Group, RFC 2507, February 1999). Sasaki is in improper reference because it is completely unrelated to the transmission of compressed headers, and in fact teaches away from

the present invention by suggesting that compression should be applied *when the network is at its busiest*. Such a rule would exacerbate the very problems solved by the present invention, namely, causing more multiple packet retransmissions when a compressed packet header is lost.

The present invention improves upon the basic compressed header procedure described in RFC 2507, as discussed above. Sasaki, on the other hand, is unrelated to compressed packet headers, as admitted by the Examiner (February 27, 2007 office action, p. 3). Sasaki is cited as teaching the general idea of deciding whether to compress data (or the type of compression to use) based on network congestion. In Sasaki, as the network gets busier, data is compressed *more* to lessen the load on the network. The Examiner cites Degermark as teaching the basic idea of compressing headers, and suggests that one of ordinary skill in the art would have found it obvious to combine Sasaki's compression decision based on the network busy state, with Degermark's header compression.

However, the Examiner fails to recognize the special problem associated with the compressed header scheme of RFC 2507. As described in detail in the specification, TCP/IP packet headers contain a significant amount of redundant data that does not change from packet to packet. Accordingly, it is advantageous to transmit only *changes* to the header, and periodically transmit a full header. However, a problem with the compressed header approach is that if a compressed header is lost or damaged during transmission, *all of the packets* since the last full header packet must be retransmitted (see, e.g., FIG. 5, and the related text).

Embodiments of the present invention solve this problem by determining when conditions are favorable to the compressed header scheme. According to exemplary embodiments of the invention, when the network is *unloaded*, the full packet transmission period can be large, such that many compressed header packets are sent between uncompressed header packets. If the network is under normal load, compressed header packets are still sent, but uncompressed header packets are sent more often, so that if a compressed header packet is lost or damaged, *fewer packets need to be retransmitted.* If the network is congested, the full packet transmission period is set to be small, preferably such that compressed header packets are not sent at all. Accordingly, if a packet is lost or damaged when the network is congested, only the lost packet needs to be retransmitted.

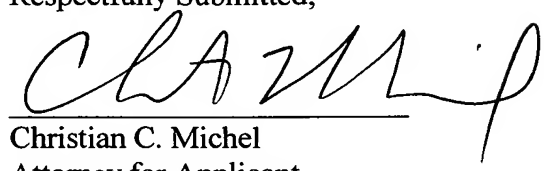
Accordingly, Sasaki is only vaguely related to compressing packets in general, but the similarities stop there. Sasaki's suggestion to compress data *more* as network traffic increases teaches directly away from the approach of embodiments of the present invention. Accordingly, because the problem solved by embodiments of the present invention is the retransmission of multiple packets when compressed *headers* are used, one of ordinary skill in the art would not combine Degermark's (RFC 2507) compressed headers with Sasaki, which teaches essentially the opposite approach.

Applicants have amended claims 1 and 13 to clarify that when the network is congested, the period for transmitting a full packet is *small*, such that compressed headers are used *less*. This feature is not shown in Sasaki or Degermark, and accordingly, the rejection of claims 1 and 13 should be withdrawn.

Furthermore, the remaining rejections of claims 2-12 and 14-22 are based on the same combination of Sasaki with Degermark, with additional secondary references cited for additional features recited in dependent claims. Without admitting whether or not the additional secondary references in fact teach what the Examiner cited them for, Applicants note that none of the references make up for the deficiency detailed above. Namely, none of the references, taken separately or together, teach or suggest dynamically changing the period for transmission of a full header packet such that full header packets are transmitted *more often* as the operating state of the network becomes more congested. Accordingly, the rejections of claims 2-12 and 14-22 should be withdrawn for the same reasons as discussed above with respect to amended claims 1 and 13.

In view of the above, it is believed that the application is in condition for allowance and notice to this effect is respectfully requested. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the telephone number indicated below.

Respectfully Submitted,



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